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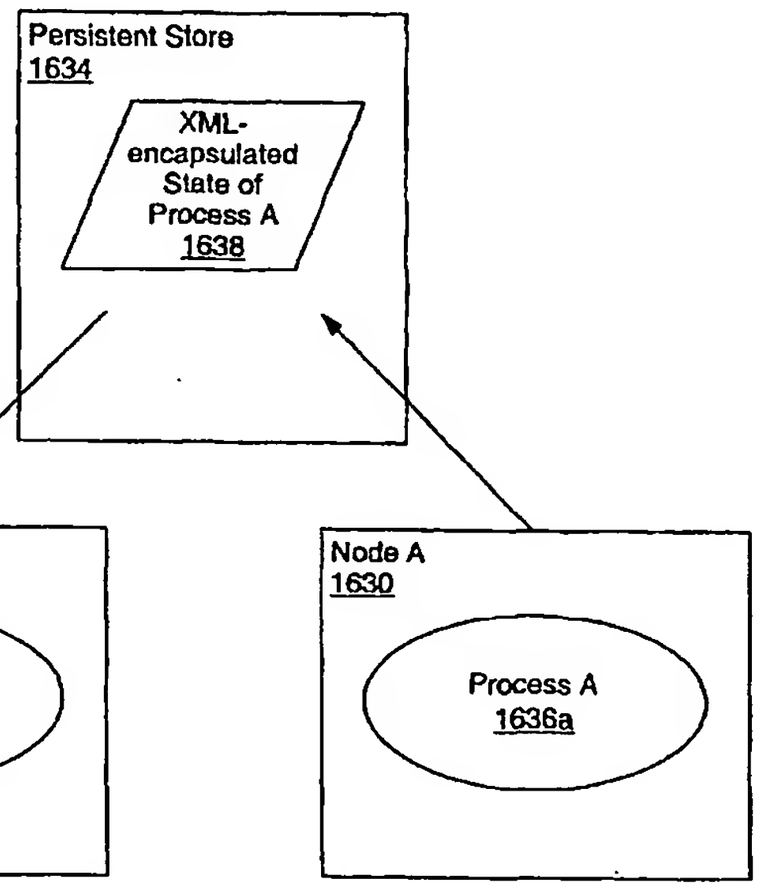
[Continued on next page]

(54) Title: MIGRATING PROCESSES USING DATA REPRESENTATION LANGUAGE REPRESENTATIONS OF THE PROCESSES IN A DISTRIBUTED COMPUTING ENVIRONMENT



(57) Abstract: A data representation language representation of the state of a process executing on a client or service in a distributed computing environment may be created. The representation may include a computation state of the device and/or virtual machine on which the process is executing, wherein the computation state of the device and/or virtual machine comprises information about the execution state of the process on the device and/or virtual machine. A process state may include, but is not limited to: threads, all objects referenced by the threads, transient variables created during the execution of the process, objects and their data, etc. In one embodiment, data describing one or more leases representing grants of access to external services, obtained from spaces by the process, may also be stored with the process state. The data representation language representation of the state of a process may be moved from node to node within the distributed computing environment. The representation of the state of a process may also be stored as a data representation language object in a store mechanism, and later retrieved from the store mechanism to resume the process execution on the same node or on a different node in the distributed computing environment. In one embodiment, an object compilation/decompilation process may be used in creating the representation of the state of a process and in regenerating the state of the process by decompiling the representation of the state of the process.

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patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 332 288 A (NORTHERN TELECOM LTD) 16 June 1999 (1999-06-16) page 30, line 28 -page 31, line 12 page 38, line 4 -page 39, line 13 ---	1,5, 18-21, 26,51, 54, 60-64,66
A	W. EMMERICH ET AL: "Incremental code mobility with XML" TECHNICAL REPORT 99-95, October 1999 (1999-10), pages 1-10, XP002211475 Unervisity College London page 2, right-hand column, line 14 - line 25 page 7, left-hand column, line 17 -right-hand column, line 13; figure 12 --- -/--	1,18,19, 26,27, 40,41, 50,51, 60,61,66

[X] Further documents are listed in the continuation of box C. [X] Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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A	K EDWARDS: "Core Jini" June 1999 (1999-06) , PRENTICE HALL PTR , 1ST EDITION XP002211482 page 320, line 6 -page 329, line 15 page 405, line 5 -page 419, last line page 635, line 1 -page 656, last line -----	1-66

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